

ABSTRACT OF THE DISCLOSURE

A chain tensioner comprising a housing, a plunger having racks formed on its opposite sides, a protrusion biasing spring, cams arranged in oblique guide grooves in the housing and engageable with the racks of the plunger, and a spacer supporting a cam biasing spring. The minimum backlash distance X is equal to $h/\tan \theta$, where h is the height of the rack teeth, and θ is the angle of the cam guide surfaces relative to the protruding direction of the plunger. The angle θ is between 15° and 70°. The tensioner prevents wobbling noises produced by a timing chain on starting an engine, prevents whistling sounds due to excess tensioning of the chain, and allows backlash to be readily set to accommodate the requirements of a wide variety of engines.